

STANDARD OPERATING PROCEDURE NO. 8
CORE PROCESSING

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3.0 PURPOSE AND SCOPE

The purpose of this document is to define the standard operating procedure (SOP) for processing of the cores collected as part of the Newark Bay Study Area Remedial Investigation Work Plan (RIWP). Core processing includes observational and photologging of cores, collection of samples from the cores for bulk density, grain size, chemical analyses, and radiochemical analyses. Core processing will be conducted to meet the sample collection and analysis objectives defined in the IWP.

This SOP may change depending upon field conditions at Newark Bay or limitations imposed by the procedure. Substantive modification to this SOP shall be approved in advance by the Facility Coordinator (FC) (or Alternate FC) and the United States Environmental Protection Agency (USEPA) Remedial Project Manager. The ultimate procedure employed will be documented in the Newark Bay RI Report.

Other SOPs will be utilized in conjunction with this SOP, including:

- SOP No. 1 – Field Documentation;
- SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis;
- SOP No. 3 – Decontamination;
- SOP No. 6 – Sediment Collection Using Hand Coring Device;
- SOP No. 7 – Sediment Collection Using Vibracoring Device; and
- SOP No. 9 – Management and Disposal of Residuals.

4.0 PROCEDURES

Cores will be processed in accordance with the procedures outlined below.

4.1 EQUIPMENT LIST

The following equipment list contains materials which may be needed in carrying out the procedures contained in this SOP. Not all equipment listed below may be necessary for a specific activity. Additional equipment may be required, pending field conditions.

- personal protective equipment (PPE) and other safety equipment, as required by RIWP Volume 3 (Tierra, 2005);
- sample processing table;
- logbook and associated Core Lithology/Description Forms and Sample Processing Forms;
- ruler or measuring tape;
- hacksaw and spare decontaminated blades;
- table of target sample location coordinates;
- electric sheet metal shears or similar;
- sampling equipment: stainless steel spatulas and bowls;
- sample bottles for chemical and radiochemical analyses;
- refrigerator, at 4°C;
- digital camera with flash;
- EnCore samplers and T-handle;
- stainless steel dividing blades/knives;
- Unified Soil Classification System (USCS) Charts;
- photoionization detector (PID) (with calibration kit);
- core storage rack to hold cores vertical and keep cold prior to either processing or placement in a refrigerator;
- appropriate waste disposal equipment; and
- scales to weigh sediment cores and samples.

4.2 PROCEDURE

The core processing procedure presented in this SOP is a multi-step process. The exact procedures and steps will depend on whether the core contains high water content sediments (i.e., material that would slump if placed horizontally). In advance of processing, each core will be visually inspected to determine if it contains high water content sediments, and consequently, whether it can be processed horizontally or vertically. Cores will then be logged and photographed, bulk density analysis will be performed, and samples will be collected and submitted for grain size, and chemical and radiochemical analyses.

4.2.1 DECONTAMINATION OF EQUIPMENT

Decontamination of equipment prior to contact with sediment will be performed in a designated decontamination area. The decontamination will be performed in accordance with procedures outlined in SOP No. 3 – Decontamination. Equipment decontamination will be conducted sufficiently ahead of the processing activities to allow for the implementation of proper procedures (including drying of decontaminated equipment).

4.2.2 PRELIMINARY ACTIVITIES PRIOR TO PROCESSING

These steps will be undertaken prior to core processing.

1. Acquire the necessary sampling equipment (e.g., decontaminated stainless steel processing equipment), containers, and label the sample containers with the appropriate sample labels.
2. Upon delivery of the core to the processing laboratory, a hard copy of the forms initiated for each core during coring operations, the Daily Activity Log, the Core Collection Form, and the Individual Core Collection Form, will be provided to the Sample Processing Area personnel (SOP No. 1 – Field Documentation). The Individual Core Collection Form will be signed by the coring personnel and the Sample Processing Area personnel. The Individual Core Collection Form will serve as the chain of custody document from the field to the Sample Processing Area.
3. Cores will be maintained in a vertical position in a core storage rack (capable of keeping cores cold) while in transit to the Sample Processing Area. At the Sample Processing Area, cores will be stored vertically and kept cold (in either the refrigerator or core storage rack) prior to processing. The Sample Processing Area will be within a secure (i.e., locked) location, allowing for limited access.

4. Transcribe the pertinent field information from the Individual Core Collection Form to the Core Description Form.
5. Dry the surface of the core tube with clean paper towels and measure the length of the core tube.
6. Determine the bulk density of the sediments according to the procedures outlined in Section 4.2.3.
7. Keeping the core vertical, remove top cap from the core to be processed. Visually inspect the sediment in the BAZ (0 – 0.5 feet below the sediment surface) and near-surface sediments to determine if they are high water content sediments. High water content sediments would slump if placed horizontally.
8. If the BAZ and near-surface sediments are comprised of high water content sediments then the core will be processed as described in Section 4.2.4 below.
9. If the BAZ and near-surface sediments are not comprised of high water content sediments, then the core will be processed as described in Section 4.2.5 of this SOP.

4.2.3 DETERMINING THE BULK DENSITY OF SEDIMENT

Prior to initiating coring activities, average weights for core tubes and caps will be determined for use in calculating the bulk density. First, an average weight per unit length (i.e., linear foot) of core tube will be established by weighing a minimum of 20 linear feet of core tube. Second, an average weight of caps will be established by weighing a minimum of 20 caps. These values will be incorporated into the bulk density equation provided below.

1. Weigh the sediment core and record the weight of the sediment and core tube ($W_{\text{sediment\&tube}}$) in the Sample Processing Form.
2. Measure the length of sediment subtracting out any gaps. Record the sediment length (L_{sediment}) in the Sample Processing Form.
3. Calculate the sediment bulk density using the following formula, and record the result in the Sample Processing Form.

$$r_{bulk} = \frac{W_{sediment}}{A_{tube} * L_{sediment}} = \frac{W_{sed\&tube} - W_{tube} - W_{caps}}{A_{tube} * L_{sediment} * 30.48 \frac{cm^3}{ft^3}}$$

where:

ρ_{bulk}	=	wet bulk density in g/cm ³
$W_{sediment}$	=	weight of sediment in the tube in grams
$W_{sed\&tube}$	=	weight of sediment and tube in grams
W_{tube}	=	weight of empty tube in grams = length of tube
in		feet * weight of tube per unit length in
feet/grams		
A_{tube}	=	inner cross sectional area of the coring tube in
		feet ²
		(0.067 ft ² for a 3.5-inch nominal inner diameter
		coring tube)
$L_{sediment}$	=	length of sediment in the tube in feet (i.e., length
		of sediment – gaps)

4. Begin processing the core according to Section 4.2.4 (high water content) or Section 4.2.5 (non-high water content).

4.2.4 CORE PROCESSING FOR HIGH WATER CONTENT SEDIMENTS

As previously described, if the core contains high water content sediments, then the procedures outlined in this section will be used. The procedures involve keeping the core in a vertical position and then carefully removing the high-water content sediments into a stainless steel bowl for processing or directly into the EnCore samplers for VOC analysis. The cores cannot be placed horizontally until sediment of sufficiently low water content is reached, such that the sediment will not slump when placed horizontally on the core processing table.

1. With the core in the vertical position, mark the outside of the core tube in 1-inch increments, beginning at the sediment-water interface, and proceeding down far enough until it is expected that low water content sediments will be encountered. Also, mark the core tube with the sample interval boundaries for chemical and radiochemical analysis, beginning at the same location.
2. While the core is in a vertical position, remove the sediment from the segment using a stainless steel utensil and place the sediment in a stainless steel bowl. Place half of the sediment volume from the core segment in one bowl (for chemical analysis) and half into another bowl (for radiochemical analysis).

3. Screen the sediment in the bowls with a PID and record in the Core Lithology/Description Form.
4. For VOC analysis, the sediment will be placed into an EnCore sampler until the sampler is full. Sediment for VOC analysis will be collected with three EnCore samplers. Collect a sample for moisture content (for use in VOC analysis) from the same location as the VOC samples were collected. Collect the moisture content sample using a stainless steel utensil and place in the appropriate sample container.
5. Visually describe the sediments in the stainless steel bowls. Using the Unified Soil Classification System (USCS) record the description of the soil type in the appropriate section of the Core Lithology/Description Form. Provide a description of approximate grain size (silt, clay, fine sand, medium sand, coarse sand, and gravel), the presence of observable biota or organic matter, odor, and color. Note any unusual observations in the appropriate column. Identify changes in lithology (such as soil type or grain-size) within the core. If changes in lithography are observed, then the approximate length of various layers will be noted. Changes in lithology will be separated with a line on the Core Lithology/Description Form.
6. Photograph the sediment in the stainless steel bowls. If foreign objects are present or unusual characteristics are noted, photograph the object or unusual characteristic. Make sure an adequate amount of light is available to photograph the sediment.
7. Record a description of each photograph in a logbook. Descriptions will include photo number, date, time (EST), core number, depth interval shown in picture, and photographer's name. Unusual observations will also be recorded.
8. For the 0 – 0.5 foot BAZ sample, collect additional sediment from the BAZ core (if collected based on geomorphic area) and place in the same stainless steel bowl (containing sediments for homogenization for chemical analyses) as the primary core BAZ sample interval. Do not use the sediment from the BAZ core for radiochemical analyses.
9. Thoroughly mix the sample in the center of a stainless steel bowl for chemical analysis. Homogenize the sediment until color and texture differences are no longer detected. Only homogenize the sediment for chemical analysis; do not homogenize the sediment for radiochemical analysis.

10. Fill pre-labeled sample jars for remaining chemical and radiochemical analyses, in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis. Sediment samples for chemical analyses will be obtained from the bowl with homogenized sediment. Sediment samples for radiochemical analysis will be obtained from a separate bowl (as described in Step 2). Confirm that the sample identification has been recorded in the Sample Processing Form.
11. If determined necessary by the Sample Processing Area personnel, the individual sample bottles may be weighed to ensure appropriate sample volume for lab analysis.
12. Remaining sediment and core tube lengths will be stored or disposed of in accordance with SOP No. 9 – Management and Disposal of Residuals.
13. The sample containers will be labeled and processed according to SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.
14. For the next sample interval, visually inspect the core to determine whether the next interval contains high water content sediments. If the core does not contain high water content sediments, then the remaining core segments can be processed as described in Section 4.2.5 below. If the core does contain high water sediments, continue to process the core following these procedures.

4.2.5 CORE PROCESSING FOR NON-HIGH WATER CONTENT SEDIMENTS

As described above, if the core does not contain high water content sediments, then the procedures outlined in this section will be used. The procedures involve:

- Laying the core horizontal and splitting it lengthwise (one half for chemical analysis and the other for radiochemical analysis);
- Screening the core with a PID and collecting samples for VOC analysis;
- Logging and photologging the core; and
- Collecting sediment samples for analysis.

Detailed procedures are as follows:

1. Transfer the core to the sample processing table.
2. Using the electric sheet metal shears (or other cutting device), make two longitudinal cuts along the core tube; one on each side. Open the tube lengthwise and carefully split the core in half. Decontaminated stainless steel dividing plates may be used to ensure equal sectioning.
3. Screen the core with a PID and record in the Core Lithology/Description Form one reading for every 0.5 foot of core screened.
4. Calculate sample intervals for chemical samples using the Sample Processing Form in accordance with Section 4.2.6 of this SOP, Core Sample Interval Selection. Mark the specified sampling interval ranges on the outside of the core tube.
5. Prior to collecting samples, transcribe the pertinent field information from the Individual Core Collection Form to the Sample Processing Form.
6. Remove the smear zone of the specified range to be sampled. To remove the smear zone, scrape sediment exposed to the core tube and discard in accordance with SOP No. 9 – Management and Disposal of Residuals.
7. Immediately after smear zone removal, remove EnCore sampler from bag. Hold EnCore sampler coring body and push the plunger rod down until the small O-ring rests against the tabs. This will ensure that the plunger moves freely. Sediment for VOC analysis will be collected with three EnCore samplers.
8. Depress the locking lever on the EnCore T-handle. Place coring body, plunger end first, into the open end of the T-handle aligning the slots on the coring body with the locking pins on the T-handle. Twist the coring body clockwise to lock the pins in the slots. Check to ensure the EnCore Sampler is locked in place.
9. Turn T-handle with T up and coring body down. Using the T-handle, push the sampler into the sediment in one half of the core tube until the coring body is completely full (when full, the small O-ring will be centered in the T-handle viewing hole). Remove the sampler from the sediment and wipe excess sediment from the coring body exterior.

10. Cap the sampler while it is still on the T-handle. Push cap over the flat area of the ridge and twist to lock the cap in place. The cap must be seated to seal the sampler. If the cap appears crooked, the locking arms are not fully seated over the coring body ridge. Remove the cap and reseal.
11. Remove the capped sampler by depressing the locking lever on the T-handle while twisting and pulling the sampler from the T-handle.
12. Lock the plunger by rotating the extended plunger rod fully counterclockwise until the wings rest firmly against the tabs.
13. Attach completed circular label (from the EnCore sampler bag) over the cap.
14. Return the full EnCore sampler to its bag, seal the bag, and place in transportation cooler on ice. Package and label the sample container following the procedures in SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.
15. Continue collecting the VOC samples as described in Steps 7 through 14 for each segment of the core (see Table 6-3 of the IWP). Collect a sediment grab sample for moisture content from the same location as the VOC samples (for use in the VOC analysis). Collect the moisture content sample using a stainless steel utensil and place in the appropriate sample container.
16. With the core split open, visually describe the core. Using the USCS, record the description of the soil type in the appropriate section of the Core Lithology/Description Form. Provide a description of approximate grain size (silt, clay, fine sand, medium sand, coarse sand, and gravel), the presence of observable biota or organic matter, odor, and color. Note any unusual observations in the appropriate column. Identify changes in lithology (such as soil type or grain-size) within the core. If changes in lithography are observed, then the approximate length of various layers will be noted. Changes in lithology will be separated with a line on the Core Lithology/Description Form.
17. Photograph the exposed section of the core. Include a ruler or measuring tape for scale and mark the top and bottom and ends of the core. If foreign objects or gaps are present, or unusual observations are made, photograph the object or subject of the observations. Make sure an adequate amount of light is available to photograph core.
18. Record a description of each photograph in a logbook. Descriptions will include photo number, date, time (EST), core number, depth interval shown in picture, and photographer's name. Unusual observations will also be recorded.

19. For each sample interval, collect sediment using a decontaminated stainless steel utensil from one half of the split core and place in the appropriate decontaminated stainless steel bowl.
20. For the 0 – 0.5 foot BAZ sample, collect additional sediment from the BAZ core (if collected based on geomorphic area) and place in the same stainless steel bowl as the primary core BAZ sample interval for homogenization.
21. Thoroughly mix the sample in the center of a stainless steel bowl. Homogenize the sediment until color and texture differences are no longer detected. Only homogenize sediment for chemical analysis; do not homogenize the sediment for radiochemical analysis.
22. Fill pre-labeled sample jars for remaining chemical analyses, in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis. Confirm that the sample identification has been recorded in the Sample Processing Form.
23. If determined necessary by the Sample Processing Area personnel, the individual sample bottles may be weighed to ensure appropriate sample volume for lab analysis.
24. For each radiochemical sample interval, collect sediment from the remaining half of the split core and place in the pre-labeled radiochemical sample containers, in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.
25. Remaining sediment and core tube lengths will be stored or disposed of in accordance with SOP No. 9 – Management and Disposal of Residuals.
26. The sample containers will be labeled and processed according to SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.

4.2.6 CORE SAMPLE INTERVAL SELECTION

Tables included at the end of this SOP provide the target sample intervals for chemical analyses and radiochemical analyses based on the geomorphic area and penetration. Section 6.3.1 of the IWP presents the rationale for the selection of the target sample intervals. A list of sample containers to be used for each analysis is specified in SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.

4.2.7 COLLECTION OF QUALITY ASSURANCE SAMPLES

4.2.7.1 FIELD QUALITY CONTROL (QC) SAMPLES

QC samples will be collected during core sample processing. QC samples will be labeled, maintained, and transported in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis. QC samples will include rinsate blanks and field duplicate samples. The QC samples will be collected at the frequency specified in Table 5-12 of the IWP.

4.2.7.2 RINSATE BLANKS

For the core processing, one rinsate blank will be collected for every 20 field samples (not to exceed one per day). The procedures for the collection of rinsate blanks are described in SOP No. 3 – Decontamination. The parameters that are being analyzed in the rinsate samples are listed in Table 5-11 of the IWP. The rinsate sample is labeled, maintained, and transported in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis

4.2.7.3 TRIP BLANKS

Trip blanks (volatiles only) are required when solid samples are analyzed for volatile organics. The trip blank is water obtained from the analytical laboratory and carried with the field sample bottles during the sampling event. When the sampling event has ended, the trip blanks are labeled and shipped to the laboratory along with representative field samples for volatile analyses only. Trip blanks will be processed at a frequency of one for each cooler shipped from field to laboratory which contains field samples for volatiles analyses.

4.2.7.4 FIELD DUPLICATE SAMPLES

Field duplicate samples will be collected following the same procedures as the collection of samples for chemical and radiochemical analysis. One field duplicate sample will be collected for every 20 field samples (per matrix and per method). The duplicate samples will be labeled, maintained, and transported in accordance with SOP No. 2 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.

4.2.7.5 LABORATORY QUALITY CONTROL SAMPLES

Matrix spike/matrix spike duplicates (MS/MSD) are required as laboratory QC tests for organic analyses, while matrix spike/duplicates (MS/DUP) are required as laboratory QC tests for metals and cyanide analyses. Within each Sample Delivery Group, one MS/MSD (for each organic analysis type) and MS/DUP (for each inorganic analysis type) must be collected for each analytical group submitted. It is not necessary that the MS/MSD or MS/DUP be derived from the same sample. Therefore, field personnel will designate a sediment sample from each SDG to be used for these analyses for each analytical method. Minimum sample analysis mass requirements, as well as additional Laboratory QC sample mass requirements, are provided in Table 6-5 of the IWP.

5.0 QUALITY ASSURANCE

Completing the Core Lithology/Description Form and Sample Processing Form provided in SOP No. 1 – Field Documentation, will document that the process is being followed and pertinent information is being collected and recorded in accordance with the procedures outlined in this SOP. Entries in the forms and logbook will be double-checked by the samplers to verify the information is correct. Completed forms will be reviewed periodically by the FC and/or Project Quality Assurance Officer or their designees to verify that the requirements are being met.

6.0 DOCUMENTATION

Field notes will be kept during core processing activities in accordance with SOP No. 1 – Field Documentation. The core weights and sample weights (if collected) will be recorded in the logbook. In addition, the following core photologging information should also be included in the logbook (at a minimum):

- Photo number;
- Time of photo;
- Core number;
- Depth interval shown in the picture;
- Photographer's name; and
- Unusual observations.

7.0 REFERENCES

Tierra. 2005. Newark Bay Study Area Remedial Investigation Work Plan. Volume 3 Health and Safety/Contingency Plan. September.

**SEGMENTATION TABLES
TABLES 1 through 13**

TABLE 1
SEGMENTATION FOR CHEMICAL ANALYSIS FOR SOUTHERN NAVIGATION
CHANNELS AND PORT CHANNELS

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)
0.5	0 to 0.5	NA	NA
0.6	0 to 0.5	NA	NA
0.7	0 to 0.5	NA	NA
0.8	0 to 0.5	NA	NA
0.9	0 to 0.5	NA	NA
1.0	0 to 0.5	0.5 to bottom	NA
1.1	0 to 0.5	0.5 to bottom	NA
1.2	0 to 0.5	0.5 to bottom	NA
1.3	0 to 0.5	0.5 to bottom	NA
1.4	0 to 0.5	0.5 to bottom	NA
1.5	0 to 0.5	0.5 to bottom	NA
1.6	0 to 0.5	0.5 to bottom	NA
1.7	0 to 0.5	0.5 to bottom	NA
1.8	0 to 0.5	0.5 to bottom	NA
1.9	0 to 0.5	0.5 to bottom	NA
2.0	0 to 0.5	0.5 to 1.25	1.25 to bottom
2.1	0 to 0.5	0.5 to 1.3	1.3 to bottom
2.2	0 to 0.5	0.5 to 1.35	1.35 to bottom
2.3	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.4	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.6	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.7	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.8	0 to 0.5	0.5 to 1.5	1.5 to bottom
2.9	0 to 0.5	0.5 to 1.5	1.5 to bottom
3.0	0 to 0.5	0.5 to 1.5	1.5 to bottom

Notes:

NA = Not applicable
Shading denotes grain size sample.

TABLE 2
SEGMENTATION FOR CHEMICAL ANALYSIS FOR NORTHERN NAVIGATION CHANNELS

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
2	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
2.25	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.75	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3.25	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3.75	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
4	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
4.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
4.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
4.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
5.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
5.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
5.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to bottom	NA	NA
6	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 4.8	4.8 to bottom	NA
6.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 4.9	4.9 to bottom	NA
6.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5	5 to bottom	NA
6.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.1	5.1 to bottom	NA
7	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.3	5.3 to bottom	NA
7.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.4	5.4 to bottom	NA
7.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.5	5.5 to bottom	NA
7.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.6	5.6 to bottom	NA
8	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.8	5.8 to bottom	NA
8.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.1	5.1 to 6.7	6.7 to bottom
8.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.25	5.2 to 6.8	6.8 to bottom
8.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.3	5.3 to 7	7 to bottom
9	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.3	5.3 to 7.2	7.2 to bottom
9.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.4	5.4 to 7.3	7.3 to bottom
9.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.5	5.5 to 7.5	7.5 to bottom
9.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.6	5.6 to 7.7	7.7 to bottom
10	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.75	5.7 to 7.8	7.8 to bottom
10.25	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.8	5.8 to 8	8 to bottom
10.5	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.8	5.8 to 8.2	8.2 to bottom
10.75	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 5.9	5.9 to 8.3	8.3 to bottom
11	0 to 0.5	0.5 to 1.5	1.5 to 3.5	3.5 to 6	6 to 8.5	8.5 to bottom

Notes:
NA = Not applicable
Shading denotes grain size sample.

TABLE 3
SEGMENTATION FOR CHEMICAL ANALYSIS FOR TRANSITIONAL SLOPES

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
0.5	0 to 0.5	NA	NA	NA	NA	NA
0.6	0 to 0.5	NA	NA	NA	NA	NA
0.7	0 to 0.5	NA	NA	NA	NA	NA
0.8	0 to 0.5	NA	NA	NA	NA	NA
0.9	0 to 0.5	NA	NA	NA	NA	NA
1	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.1	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.2	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.3	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.4	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.5	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.6	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.7	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.8	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.9	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
2	0 to 0.5	0.5 to 1.25	1.25 to bottom	NA	NA	NA
2.1	0 to 0.5	0.5 to 1.3	1.3 to bottom	NA	NA	NA
2.2	0 to 0.5	0.5 to 1.35	1.35 to bottom	NA	NA	NA
2.3	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.4	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.6	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.7	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.8	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.9	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3	0 to 0.5	0.5 to 1.5	1.5 to 2.25	2.25 to bottom	NA	NA
3.1	0 to 0.5	0.5 to 1.5	1.5 to 2.3	2.3 to bottom	NA	NA
3.2	0 to 0.5	0.5 to 1.5	1.5 to 2.35	2.35 to bottom	NA	NA
3.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.25	3.25 to bottom	NA
4.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.3	3.3 to bottom	NA

TABLE 3 (cont'd)
SEGMENTATION FOR CHEMICAL ANALYSIS FOR TRANSITIONAL SLOPES

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
4.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.35	3.35 to bottom	NA
4.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.25	4.25 to bottom
5.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.3	4.3 to bottom
5.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.35	4.35 to bottom
5.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to bottom
5.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to bottom
5.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to bottom

Notes:

NA – Not applicable

Shading denotes grain size sample.

TABLE 4
SEGMENTATION FOR CHEMICAL ANALYSIS FOR SUB-TIDAL FLATS (3.5 FT CORES)

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)
0.5	0 to 0.5	NA	NA	NA
0.6	0 to 0.5	NA	NA	NA
0.7	0 to 0.5	NA	NA	NA
0.8	0 to 0.5	NA	NA	NA
0.9	0 to 0.5	NA	NA	NA
1	0 to 0.5	0.5 to bottom	NA	NA
1.1	0 to 0.5	0.5 to bottom	NA	NA
1.2	0 to 0.5	0.5 to bottom	NA	NA
1.3	0 to 0.5	0.5 to bottom	NA	NA
1.4	0 to 0.5	0.5 to bottom	NA	NA
1.5	0 to 0.5	0.5 to bottom	NA	NA
1.6	0 to 0.5	0.5 to bottom	NA	NA
1.7	0 to 0.5	0.5 to bottom	NA	NA
1.8	0 to 0.5	0.5 to bottom	NA	NA
1.9	0 to 0.5	0.5 to bottom	NA	NA
2	0 to 0.5	0.5 to 1.25	1.25 to bottom	NA
2.1	0 to 0.5	0.5 to 1.3	1.3 to bottom	NA
2.2	0 to 0.5	0.5 to 1.35	1.35 to bottom	NA
2.3	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.4	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.6	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.7	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.8	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.9	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
3	0 to 0.5	0.5 to 1.5	1.5 to 2.25	2.25 to bottom
3.1	0 to 0.5	0.5 to 1.5	1.5 to 2.3	2.3 to bottom
3.2	0 to 0.5	0.5 to 1.5	1.5 to 2.35	2.35 to bottom
3.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom

Notes:

NA – Not applicable.
Shading denotes grain size sample.

TABLE 5
SEGMENTATION FOR CHEMICAL ANALYSIS FOR SUB-TIDAL FLATS (6.5 FT CORES)

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
4.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to bottom
5.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.6	4.6 to bottom
5.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.7	4.7 to bottom
5.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.8	4.8 to bottom
5.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.9	4.9 to bottom
5.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
5.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
5.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom

Notes:

NA – Not applicable.

Shading denotes grain size sample.

TABLE 6
SEGMENTATION FOR CHEMICAL ANALYSIS FOR INTER-TIDAL AREA

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)
0.5	0 to 0.5	NA	NA	NA
0.6	0 to 0.5	NA	NA	NA
0.7	0 to 0.5	NA	NA	NA
0.8	0 to 0.5	NA	NA	NA
0.9	0 to 0.5	NA	NA	NA
1	0 to 0.5	0.5 to bottom	NA	NA
1.1	0 to 0.5	0.5 to bottom	NA	NA
1.2	0 to 0.5	0.5 to bottom	NA	NA
1.3	0 to 0.5	0.5 to bottom	NA	NA
1.4	0 to 0.5	0.5 to bottom	NA	NA
1.5	0 to 0.5	0.5 to bottom	NA	NA
1.6	0 to 0.5	0.5 to bottom	NA	NA
1.7	0 to 0.5	0.5 to bottom	NA	NA
1.8	0 to 0.5	0.5 to bottom	NA	NA
1.9	0 to 0.5	0.5 to bottom	NA	NA
2	0 to 0.5	0.5 to 1. 25	1.25 to bottom	NA
2.1	0 to 0.5	0.5 to 1.3	1.3 to bottom	NA
2.2	0 to 0.5	0.5 to 1. 35	1.35 to bottom	NA
2.3	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.4	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.6	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.7	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.8	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
2.9	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA
3	0 to 0.5	0.5 to 1.5	1.5 to 2.25	2.25 to bottom
3.1	0 to 0.5	0.5 to 1.5	1.5 to 2.3	2.3 to bottom
3.2	0 to 0.5	0.5 to 1.5	1.5 to 2.35	2. 35 to bottom
3.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
3.8	0 to 0.5	0.5 to 1.5	1.5 to 2. 5	2. 5 to bottom
3.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom
4.0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom

Notes:
NA – Not applicable.
Shading denotes grain size sample.

TABLE 7
SEGMENTATION FOR CHEMICAL ANALYSIS FOR INDUSTRIAL WATERFRONT AREA

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
0.5	0 to 0.5	NA	NA	NA	NA	NA
0.6	0 to 0.5	NA	NA	NA	NA	NA
0.7	0 to 0.5	NA	NA	NA	NA	NA
0.8	0 to 0.5	NA	NA	NA	NA	NA
0.9	0 to 0.5	NA	NA	NA	NA	NA
1	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.1	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.2	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.3	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.4	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.5	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.6	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.7	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.8	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
1.9	0 to 0.5	0.5 to bottom	NA	NA	NA	NA
2	0 to 0.5	0.5 to 1. 25	1.25 to bottom	NA	NA	NA
2.1	0 to 0.5	0.5 to 1.3	1.3 to bottom	NA	NA	NA
2.2	0 to 0.5	0.5 to 1. 35	1.35 to bottom	NA	NA	NA
2.3	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.4	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.5	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.6	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.7	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.8	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
2.9	0 to 0.5	0.5 to 1.5	1.5 to bottom	NA	NA	NA
3	0 to 0.5	0.5 to 1.5	1.5 to 2.25	2.25 to bottom	NA	NA
3.1	0 to 0.5	0.5 to 1.5	1.5 to 2.3	2.3 to bottom	NA	NA
3.2	0 to 0.5	0.5 to 1.5	1.5 to 2.35	2.35 to bottom	NA	NA
3.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
3.8	0 to 0.5	0.5 to 1.5	1.5 to 2. 5	2. 5 to bottom	NA	NA
3.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to bottom	NA	NA
4.0	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.25	3.25 to bottom	NA

TABLE 7 (cont'd)
SEGMENTATION FOR CHEMICAL ANALYSIS FOR INDUSTRIAL WATERFRONT

Penetration (ft)	Segment 1 (ft)	Segment 2 (ft)	Segment 3 (ft)	Segment 4 (ft)	Segment 5 (ft)	Segment 6 (ft)
4.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.3	3.3 to bottom	NA
4.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.35	3.35 to bottom	NA
4.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
4.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to bottom	NA
5.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to bottom
5.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.6	4.6 to bottom
5.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.7	4.7 to bottom
5.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.8	4.8 to bottom
5.6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.9	4.9 to bottom
5.7	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
5.8	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
5.9	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.1	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.2	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.3	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.4	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom
6.5	0 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 5.0	5.0 to bottom

Notes:

NA = Not applicable.

Core 012 will include a seventh segment from 6.5 to 8.0 ft.

Shading denotes grain size sample.

TABLE 8
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR NORTHERN
NAVIGATIONAL CHANNELS

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
2.92	35	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.00	36	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.08	37	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.17	38	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.25	39	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.33	40	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.42	41	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42

TABLE 8 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR NORTHERN
NAVIGATIONAL CHANNELS

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
3.50	42	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.58	43	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.67	44	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.75	45	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.83	46	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
3.92	47	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42
4.00	48	0 to 2	2 to 4	4 to 6	7 to 9	15 to 17	23 to 25	31 to 33	39 to 41	46 to 48
4.08	49	0 to 2	2 to 4	4 to 6	7 to 9	15 to 17	24 to 26	32 to 34	40 to 42	47 to 49
4.17	50	0 to 2	2 to 4	4 to 6	7 to 9	16 to 18	24 to 26	32 to 34	41 to 43	48 to 50
4.25	51	0 to 2	2 to 4	4 to 6	8 to 10	16 to 18	25 to 27	33 to 35	42 to 44	49 to 51
4.33	52	0 to 2	2 to 4	4 to 6	8 to 10	16 to 18	25 to 27	34 to 36	42 to 44	50 to 52
4.42	53	0 to 2	2 to 4	4 to 6	8 to 10	17 to 19	26 to 28	34 to 36	43 to 45	51 to 53
4.50	54	0 to 2	2 to 4	4 to 6	8 to 10	17 to 19	26 to 28	35 to 37	44 to 46	52 to 54
4.58	55	0 to 2	2 to 4	4 to 6	8 to 10	17 to 19	27 to 29	36 to 38	45 to 47	53 to 55
4.67	56	0 to 2	2 to 4	4 to 6	8 to 10	18 to 20	27 to 29	36 to 38	46 to 48	54 to 56
4.75	57	0 to 2	2 to 4	4 to 6	9 to 11	18 to 20	28 to 30	37 to 39	47 to 49	55 to 57
4.83	58	0 to 2	2 to 4	4 to 6	9 to 11	18 to 20	28 to 30	38 to 40	47 to 49	56 to 58
4.92	59	0 to 2	2 to 4	4 to 6	9 to 11	19 to 21	29 to 31	38 to 40	48 to 50	57 to 59
5.00	60	0 to 2	2 to 4	4 to 6	9 to 11	19 to 21	29 to 31	39 to 41	49 to 51	58 to 60
5.08	61	0 to 2	2 to 4	4 to 6	9 to 11	19 to 21	30 to 32	40 to 42	50 to 52	59 to 61
5.17	62	0 to 2	2 to 4	4 to 6	9 to 11	20 to 22	30 to 32	40 to 42	51 to 53	60 to 62
5.25	63	0 to 2	2 to 4	4 to 6	10 to 12	20 to 22	31 to 33	41 to 43	52 to 54	61 to 63
5.33	64	0 to 2	2 to 4	4 to 6	10 to 12	20 to 22	31 to 33	42 to 44	52 to 54	62 to 64
5.42	65	0 to 2	2 to 4	4 to 6	10 to 12	21 to 23	32 to 34	42 to 44	53 to 55	63 to 65
5.50	66	0 to 2	2 to 4	4 to 6	10 to 12	21 to 23	32 to 34	43 to 45	54 to 56	64 to 66
5.58	67	0 to 2	2 to 4	4 to 6	10 to 12	21 to 23	33 to 35	44 to 46	55 to 57	65 to 67
5.67	68	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	33 to 35	44 to 46	56 to 58	66 to 68
5.75	69	0 to 2	2 to 4	4 to 6	11 to 13	22 to 24	34 to 36	45 to 47	57 to 59	67 to 69
5.83	70	0 to 2	2 to 4	4 to 6	11 to 13	22 to 24	34 to 36	46 to 48	57 to 59	68 to 70
5.92	71	0 to 2	2 to 4	4 to 6	11 to 13	23 to 25	35 to 37	46 to 48	58 to 60	69 to 71
6.00	72	0 to 2	2 to 4	4 to 6	11 to 13	23 to 25	35 to 37	47 to 49	59 to 61	70 to 72
6.08	73	0 to 2	2 to 4	4 to 6	11 to 13	23 to 25	36 to 38	48 to 50	60 to 62	71 to 73
6.17	74	0 to 2	2 to 4	4 to 6	11 to 13	24 to 26	36 to 38	48 to 50	61 to 63	72 to 74
6.25	75	0 to 2	2 to 4	4 to 6	12 to 14	24 to 26	37 to 39	49 to 51	62 to 64	73 to 75
6.33	76	0 to 2	2 to 4	4 to 6	12 to 14	24 to 26	37 to 39	50 to 52	62 to 64	74 to 76
6.42	77	0 to 2	2 to 4	4 to 6	12 to 14	25 to 27	38 to 40	50 to 52	63 to 65	75 to 77

TABLE 8 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR NORTHERN
NAVIGATIONAL CHANNELS

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
6.50	78	0 to 2	2 to 4	4 to 6	12 to 14	25 to 27	38 to 40	51 to 53	64 to 66	76 to 78
6.58	79	0 to 2	2 to 4	4 to 6	12 to 14	25 to 27	39 to 41	52 to 54	65 to 67	77 to 79
6.67	80	0 to 2	2 to 4	4 to 6	12 to 14	26 to 28	39 to 41	52 to 54	66 to 68	78 to 80
6.75	81	0 to 2	2 to 4	4 to 6	13 to 15	26 to 28	40 to 42	53 to 55	67 to 69	79 to 81
6.83	82	0 to 2	2 to 4	4 to 6	13 to 15	26 to 28	40 to 42	54 to 56	67 to 69	80 to 82
6.92	83	0 to 2	2 to 4	4 to 6	13 to 15	27 to 29	41 to 43	54 to 56	68 to 70	81 to 83
7.00	84	0 to 2	2 to 4	4 to 6	13 to 15	27 to 29	41 to 43	55 to 57	69 to 71	82 to 84
7.08	85	0 to 2	2 to 4	4 to 6	13 to 15	27 to 29	42 to 44	56 to 58	70 to 72	83 to 85
7.17	86	0 to 2	2 to 4	4 to 6	13 to 15	28 to 30	42 to 44	56 to 58	71 to 73	84 to 86
7.25	87	0 to 2	2 to 4	4 to 6	14 to 16	28 to 30	43 to 45	57 to 59	72 to 74	85 to 87
7.33	88	0 to 2	2 to 4	4 to 6	14 to 16	28 to 30	43 to 45	58 to 60	72 to 74	86 to 88
7.42	89	0 to 2	2 to 4	4 to 6	14 to 16	29 to 31	44 to 46	58 to 60	73 to 75	87 to 89
7.50	90	0 to 2	2 to 4	4 to 6	14 to 16	29 to 31	44 to 46	59 to 61	74 to 76	88 to 90
7.58	91	0 to 2	2 to 4	4 to 6	14 to 16	29 to 31	45 to 47	60 to 62	75 to 77	89 to 91
7.67	92	0 to 2	2 to 4	4 to 6	14 to 16	30 to 32	45 to 47	60 to 62	76 to 78	90 to 92
7.75	93	0 to 2	2 to 4	4 to 6	15 to 17	30 to 32	46 to 48	61 to 63	77 to 79	91 to 93
7.83	94	0 to 2	2 to 4	4 to 6	15 to 17	30 to 32	46 to 48	62 to 64	77 to 79	92 to 94
7.92	95	0 to 2	2 to 4	4 to 6	15 to 17	31 to 33	47 to 49	62 to 64	78 to 80	93 to 95
8.00	96	0 to 2	2 to 4	4 to 6	15 to 17	31 to 33	47 to 49	63 to 65	79 to 81	94 to 96
8.08	97	0 to 2	2 to 4	4 to 6	15 to 17	31 to 33	48 to 50	64 to 66	80 to 82	95 to 97
8.17	98	0 to 2	2 to 4	4 to 6	15 to 17	32 to 34	48 to 50	64 to 66	81 to 83	96 to 98
8.25	99	0 to 2	2 to 4	4 to 6	16 to 18	32 to 34	49 to 51	65 to 67	82 to 84	97 to 99
8.33	100	0 to 2	2 to 4	4 to 6	16 to 18	32 to 34	49 to 51	66 to 68	82 to 84	98 to 100
8.42	101	0 to 2	2 to 4	4 to 6	16 to 18	33 to 35	50 to 52	66 to 68	83 to 85	99 to 101
8.50	102	0 to 2	2 to 4	4 to 6	16 to 18	33 to 35	50 to 52	67 to 69	84 to 86	100 to 102
8.58	103	0 to 2	2 to 4	4 to 6	16 to 18	33 to 35	51 to 53	68 to 70	85 to 87	101 to 103
8.67	104	0 to 2	2 to 4	4 to 6	16 to 18	34 to 36	51 to 53	68 to 70	86 to 88	102 to 104
8.75	105	0 to 2	2 to 4	4 to 6	17 to 19	34 to 36	52 to 54	69 to 71	87 to 89	103 to 105
8.83	106	0 to 2	2 to 4	4 to 6	17 to 19	34 to 36	52 to 54	70 to 72	87 to 89	104 to 106
8.92	107	0 to 2	2 to 4	4 to 6	17 to 19	35 to 37	53 to 55	70 to 72	88 to 90	105 to 107
9.00	108	0 to 2	2 to 4	4 to 6	17 to 19	35 to 37	53 to 55	71 to 73	89 to 91	106 to 108
9.08	109	0 to 2	2 to 4	4 to 6	17 to 19	35 to 37	54 to 56	72 to 74	90 to 92	107 to 109
9.17	110	0 to 2	2 to 4	4 to 6	17 to 19	36 to 38	54 to 56	72 to 74	91 to 93	108 to 110
9.25	111	0 to 2	2 to 4	4 to 6	18 to 20	36 to 38	55 to 57	73 to 75	92 to 94	109 to 111
9.33	112	0 to 2	2 to 4	4 to 6	18 to 20	36 to 38	55 to 57	74 to 76	92 to 94	110 to 112
9.42	113	0 to 2	2 to 4	4 to 6	18 to 20	37 to 39	56 to 58	74 to 76	93 to 95	111 to 113

TABLE 8 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR NORTHERN
NAVIGATIONAL CHANNEL

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
9.50	114	0 to 2	2 to 4	4 to 6	18 to 20	37 to 39	56 to 58	75 to 77	94 to 96	112 to 114
9.58	115	0 to 2	2 to 4	4 to 6	18 to 20	37 to 39	57 to 59	76 to 78	95 to 97	113 to 115
9.67	116	0 to 2	2 to 4	4 to 6	18 to 20	38 to 40	57 to 59	76 to 78	96 to 98	114 to 116
9.75	117	0 to 2	2 to 4	4 to 6	19 to 21	38 to 40	58 to 60	77 to 79	97 to 99	115 to 117
9.83	118	0 to 2	2 to 4	4 to 6	19 to 21	38 to 40	58 to 60	78 to 80	97 to 99	116 to 118
9.92	119	0 to 2	2 to 4	4 to 6	19 to 21	39 to 41	59 to 61	78 to 80	98 to 100	117 to 119
10.00	120	0 to 2	2 to 4	4 to 6	19 to 21	39 to 41	59 to 61	79 to 81	99 to 101	118 to 120
10.08	121	0 to 2	2 to 4	4 to 6	19 to 21	39 to 41	60 to 62	80 to 82	100 to 102	119 to 121
10.17	122	0 to 2	2 to 4	4 to 6	19 to 21	40 to 42	60 to 62	80 to 82	101 to 103	120 to 122
10.25	123	0 to 2	2 to 4	4 to 6	20 to 22	40 to 42	61 to 63	81 to 83	102 to 104	121 to 123
10.33	124	0 to 2	2 to 4	4 to 6	20 to 22	40 to 42	61 to 63	82 to 84	102 to 104	122 to 124
10.42	125	0 to 2	2 to 4	4 to 6	20 to 22	41 to 43	62 to 64	82 to 84	103 to 105	123 to 125
10.50	126	0 to 2	2 to 4	4 to 6	20 to 22	41 to 43	62 to 64	83 to 85	104 to 106	124 to 126
10.58	127	0 to 2	2 to 4	4 to 6	20 to 22	41 to 43	63 to 65	84 to 86	105 to 107	125 to 127
10.67	128	0 to 2	2 to 4	4 to 6	20 to 22	42 to 44	63 to 65	84 to 86	106 to 108	126 to 128
10.75	129	0 to 2	2 to 4	4 to 6	21 to 23	42 to 44	64 to 66	85 to 87	107 to 109	127 to 129
10.83	130	0 to 2	2 to 4	4 to 6	21 to 23	42 to 44	64 to 66	86 to 88	107 to 109	128 to 130
10.92	131	0 to 2	2 to 4	4 to 6	21 to 23	43 to 45	65 to 67	86 to 88	108 to 110	129 to 131
11.00	132	0 to 2	2 to 4	4 to 6	21 to 23	43 to 45	65 to 67	87 to 89	109 to 111	130 to 132

Note:

NA – Not applicable.

TABLE 9
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR TRANSITIONAL SLOPES

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	NA	NA	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
2.92	35	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.00	36	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.08	37	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.17	38	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.25	39	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.33	40	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.42	41	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	NA	NA	NA
3.50	42	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA

TABLE 9 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR TRANSITIONAL SLOPES

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
3.58	43	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
3.67	44	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
3.75	45	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
3.83	46	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
3.92	47	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.00	48	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.08	49	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.17	50	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.25	51	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.33	52	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.42	53	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	NA	NA
4.50	54	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
4.58	55	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
4.67	56	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
4.75	57	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
4.83	58	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
4.92	59	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.00	60	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.08	61	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.17	62	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.25	63	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.33	64	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.42	65	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	NA
5.50	66	0 to 2	2 to 4	4 to 6	10 to 12	18 to 20	28 to 30	40 to 42	52 to 54	64 to 66

Note:

NA = Not applicable

TABLE 10
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR SUB-TIDAL FLATS (3.5 FT CORES)

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
2.92	35	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.00	36	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.08	37	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.17	38	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.25	39	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.33	40	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.42	41	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.50	42	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42

Note:
NA = Not applicable

TABLE 11
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR SUB-TIDAL FLATS (6.5 FT CORES)

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.92	35	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
3.00	36	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.08	37	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.17	38	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.25	39	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.33	40	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.42	41	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.50	42	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA

TABLE 11 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR SUB-TIDAL FLATS (6.5 FT CORES)

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
3.58	43	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.67	44	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.75	45	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.83	46	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.92	47	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.00	48	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.08	49	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.17	50	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.25	51	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.33	52	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.42	53	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.50	54	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.58	55	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.67	56	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.75	57	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.83	58	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.92	59	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.00	60	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.08	61	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.17	62	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.25	63	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.33	64	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.42	65	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.50	66	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.58	67	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.67	68	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.75	69	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.83	70	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.92	71	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.00	72	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.08	73	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.17	74	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.25	75	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.33	76	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.42	77	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.50	78	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	76 to 78

Note:

NA = Not applicable.

TABLE 12
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR INTER-TIDAL AREA

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	8 to 10	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
2.92	35	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.00	36	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.08	37	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.17	38	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.25	39	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.33	40	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.42	41	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	NA
3.50	42	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	32 to 34	40 to 42

TABLE 12 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR INTER-TIDAL AREA

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
3.58	27	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	NA	NA	NA
3.67	28	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
3.75	29	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
3.83	30	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
3.92	31	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA
4.00	32	0 to 2	2 to 4	4 to 6	8 to 10	14 to 16	20 to 22	26 to 28	NA	NA

Note:

NA = Not applicable.

TABLE 13
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR INDUSTRIAL WATERFRONT

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
0.50	6	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.58	7	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.67	8	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.75	9	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.83	10	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
0.92	11	0 to 2	2 to 4	4 to 6	NA	NA	NA	NA	NA	NA
1.00	12	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.08	13	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.17	14	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.25	15	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.33	16	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.42	17	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.50	18	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.58	19	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.67	20	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.75	21	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.83	22	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
1.92	23	0 to 2	2 to 4	4 to 6	10 to 12	NA	NA	NA	NA	NA
2.00	24	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.08	25	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.17	26	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.25	27	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.33	28	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.42	29	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.50	30	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.58	31	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.67	32	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.75	33	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.83	34	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
2.92	35	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	NA	NA	NA	NA
3.00	36	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.08	37	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.17	38	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.25	39	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.33	40	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.42	41	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.50	42	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA

TABLE 13 (cont'd)
SEGMENTATION FOR RADIOCHEMICAL ANALYSIS FOR INDUSTRIAL WATERFRONT

Penetration		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9
(ft)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
3.58	43	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.67	44	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.75	45	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.83	46	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
3.92	47	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.00	48	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.08	49	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	NA	NA	NA
4.17	50	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.25	51	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.33	52	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.42	53	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.50	54	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.58	55	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.67	56	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.75	57	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.83	58	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
4.92	59	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.00	60	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.08	61	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.17	62	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.25	63	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	NA	NA
5.33	64	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.42	65	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.50	66	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.58	67	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.67	68	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.75	69	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.83	70	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
5.92	71	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.00	72	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.08	73	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.17	74	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.25	75	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.33	76	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.42	77	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	NA
6.50	78	0 to 2	2 to 4	4 to 6	10 to 12	22 to 24	34 to 36	48 to 50	62 to 64	76 to 78

Notes:

NA = Not applicable.

Core 012 will include a tenth segment from 94 to 96 inches.